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Re: Comments—S.H. Bell's April 2017 Draft Fugitive Dust Plan

Dear Jennifer,

Thank you for meeting with us two weeks ago and providing us the opportunity to submit these written comments on S.H. Bell's April 2017 draft fugitive dust plan for its facility located at 10218 S. Avenue O (Avenue O facility). As you know, S.H. Bell abuts a densely populated residential community that has been exposed to an undue amount of air pollution; ASTDR has determined that there are more than 35,000 residents within approximately a one-mile radius of the Avenue O facility, including 10,000-11,000 children under the age of six and women of child-bearing age.[1]

As concerned as we have been about the exposure to unsafe levels of particulate matter (PM) that have created significant respiratory and cardiovascular health risks to the community,[2] the exposure to manganese dust—a neurotoxin—raises the stakes even higher. The City must not allow thousands of children, living near the S.H. Bell facility, to be subjected to potential neurological damage any longer; the most effective way to protect this community is to move the dangerous operations away from children and families. This is especially true now that S.H. Bell has confirmed that it will not enclose or adopt other robust controls for dust-generating barge operations—located in close proximity to residences—but will continue to conduct loading and unloading of barges in the open air with an

[1] ATSDR, Health Consultation: Review and Analysis of Particulate Matter and Metal Exposures in Air,
[2] *Id.*

excavator, limited only by reduced drop heights and controlled only by mobile misting trucks.

We hope that the Chicago Department of Public Health (CDPH) will, in keeping with its mission, use every possible tool to quell this threat to the community. CDPH's Rules and Regulations for Control of Emissions from the Handling and Storage of Bulk Material Regulations (Bulk Material Rules), developed in response to concerns about petroleum coke (petcoke), do not provide an adequate solution for the threat posed by manganese. We urge the Department to strengthen the regulations to address manganese, based on experience gained since their adoption in 2014. Nonetheless, while CDPH and the City consider all other measures to protect the community, CDPH must use its existing authority under the fugitive dust rules to "reduce the risk of harm to public health or the environment from air pollution"[3] associated with SH Bell's operations.

Both CDPH and our groups have previously expressed serious concern about S.H. Bell's inadequate and vague December 2015 fugitive dust plan (2015 Draft FDP).[4] Although its April 2017 draft fugitive dust plan (2017 Draft FDP) may answer some questions as to the materials handled and storage methods used at the facility, it still lacks sufficient details and objective requirements to ensure the implementation of dust control. S.H. Bell's 2017 Draft FDP does not ensure the most important goal of the fugitive dust plan rules—to protect the neighboring community from the harms associated with particulate matter and manganese. We remain deeply concerned, based on the lessons learned from S.H. Bell's Ohio operations, that S.H. Bell will not be able to handle manganese here while also protecting residents from these harms.

CDPH must not approve the draft plan until S.H. Bell: (1) lowers the reportable action levels to a level that will reflect the serious public health risks

[3] CDPH, Article II. Air Pollution Control Regulations, Preamble (March 13, 2014).
[4] See Comments of NRDC, SETF, and SSCBP on S.H. Bell's December 2016 Variance Request (January 11, 2017); see Letter from Commissioner Morita, CDPH to Kim Walberg, Counsel for S.H. Bell (March 3, 2017) (CDPH March 3 Letter).

associated with manganese dust emissions; (2) puts in place strict and objective controls to stop defined, dust-generating activities during high wind events; (3) strengthens the opacity provisions; (4) moves the PS2 monitor from 32' to 40,' as required by EPA; and (5) amends the plan to provide clear enforceable measures for indoor/outdoor storage, unloading and loading, and truck and roadway cleaning.

We urge CDPH to mandate these changes and treat them as "deal breakers" for a company that wants to operate in a densely populated community. CDPH must disapprove the S.H. Bell's current draft fugitive dust plan under Section 3.0(3) of the Bulk Materials Regulations because it is "missing [any] required information" and is "insufficient to ensure compliance" with the regulations, and otherwise.

I. Health Impacts of Manganese

In support of our comments on S.H. Bell's 2017 Draft FDP, we reiterate and incorporate by reference our comments—set forth in our submission to the CDPH in response to S.H. Bell's request for a variance, dated January 11, 2017—on the health threats from manganese, a known neurotoxin. In addition, the scientific literature continues to develop and show grounds for significant concern with community-level exposures to manganese.

For these reasons, and because the City has a duty to protect its residents via its police powers, we do not believe that it is appropriate to simply apply the Agency for Toxic Substances and Disease Registry's 2012 "minimum risk level" (MRL) for manganese to determine whether additional action is warranted here. First, the MRL is meant to be used as a screening tool, not as an absolute gauge of regulatory or enforcement activity. Given the large number of vulnerable people, in particular children, living in close proximity to S.H. Bell, we believe a more proactive approach is needed here, especially in the City's role as regulator. Second, the MRL does not take into account the cumulative exposures experienced by a community like the Southeast Side. Indeed, EPA considers the area surrounding S.H. Bell an environmentally overburdened community, and its high levels of exposure to particulate matter, air toxics and other respiratory hazards place it in the top 95%

in the state of Illinois.[5]

The MRL's use here to decide whether a facility is adequately controlling dust does not protect public health consistent with the City of Chicago's obligations to its residents. Instead, as set forth above, CDPH should use all of its tools and authorities to eliminate this threat to Chicago communities by disallowing such sites to operate near residential neighborhoods. If the City is not willing to do so, CDPH must at minimum minimize the risk of manganese exposure to communities through stringent and enforceable control, reporting and recordkeeping requirements set forth in the City's regulations and in individual fugitive dust plans.

II. Monitoring Data to Date

We also have significant concerns given the monitored levels of manganese at S.H. Bell to date. At this time, two months of filter data, including manganese, are publicly available. According to the company, the monthly average manganese levels for March and April 2017 are 0.23 ug/m3 and 0.21 ug/m3,[6] respectively. While these monthly averages do not exceed the ATSDR's MRL, they are not far from it, and we note a number of concerns stemming from the data thus far:

- As set forth above, the MRL is now five years old, and thus may not adequately account for research conducted since then, or research in the pipeline or under development.

- The two monthly averages from S.H. Bell are approximately double the longer-term averages collected at the nearby KCBX site and Rowan Park. The average from approximately one year of metals monitoring at KCBX was 0.128 ug/m3, according to the ATSDR's 2016 report; according to the 2015 Rowan Park EPA study conducted to the south of KCBX, the approximately 7-month average in 2014-2015 at that location was 0.108 ug/m3. Thus it is clear that there is a localized issue with high manganese levels at/around the S.H. Bell facility, which is likely to exist around other similar facilities as well.

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[5] See EPA Website, "Environmental Issues in East Chicago," https://www.epa.gov/il/environmental-issues-southeast-chicago; see also EJScreenReport (attached).

[6] Letter from John Bedeck, S.H.Bell to Otis Omenazu, Chief Air Engineer, CDPH, S.H. Bell Company, 10218 South Avenue O, Monthly Data from FRM Monitors, 4 (June 1, 2017).

- S.H. Bell held off monitoring for more than two years after the monitors were required by EPA's Clean Air Act information request and the City's dust regulations. It used this time to implement additional controls, and is now likely on its best behavior with regards to site activities that require significant ongoing attention to control dust. Even under these circumstances, the measured levels are averaging close to 75% of the MRL. Moreover, even if the measured levels were acceptable from a health standpoint, the community and others like it need assurances that companies will continue to control their dust in the long-run as well, as or better than they do while under scrutiny now. Such an outcome depends on use of controls that are self-implementing wherever feasible, as well as objective dust plan requirements that do not allow for slippage. It is also critical to stringently control manganese moving forward, given that historic levels of exposure in the area surrounding S.H. Bell were likely considerably higher, so as to not further aggravate residents' cumulative lifetime exposure to manganese.

III. Background: S.H. Bell's 2015 Draft Fugitive Dust Plan Did Not Provide Adequate Protection.

In addition to viewing the proposed dust plan in light of the health concerns with manganese and monitoring data to date, it is helpful to put the April 2017 revised draft FDP plan in context of the inadequacies of the December 2015 FDP plan (2015 FDP), as laid out in our January 11, 2017 comments and CDPH's March 3, 2017 letter to S.H. Bell.

In our January 2017 letter, we argued that the vague and internally inconsistent 2015 FDP essentially enabled S.H. Bell: (1) to store dusty materials, including manganese, in outdoor piles *without watering*; and (2) move materials around the site from indoor to outdoor piles, including loading and unloading outside *with little controls on the dust*.[7] The 2015 FDP depended too heavily on S.H. Bell personnel's willingness and ability to take steps to reduce the fugitive dust in deploying mobile spraying systems around multiple working areas; in determining when weather conditions are acceptable for conducting dust-generating activities; and in conducting opacity and visible emissions testing, among other activities. The 2015 FDP's failure to clearly detail the way each material is handled obscured

[7] See NRDC, SETF, SSCBP January 11, 2017 Comments.

whether the operations contribute to harmful levels of emissions and the need for more effective controls. Given the heightened risks associated with manganese, we argued that such a vague plan failed to meet the intent and explicit requirements of the City's fugitive dust plan provision.

Similarly, CDPH's March 3, 2017 letter to S.H. Bell indicated that the 2015 FDP needed "more detailed descriptions of protective measures." CDPH asked S.H. Bell to—

1. Analyze the feasibility of moving all manganese-containing materials inside a fully-enclosed building.
2. Analyze feasibility of adding a fourth wall to three-walled storage structures.
3. Ensure tarping of all trucks used to transport materials on site.
4. Provide more robust controls to ensure dust does not escape from buildings.[8]
5. Provide more robust controls to ensure dust is not dispersed during rail and barge unloading.

CDPH's March 3 letter also provided section-by-section comments on S.H. Bell's 2015 FDP, in which CDPH sought specificity on the materials handled and the manner in which they are handled, and the detailed plans for wettings/spraying material or otherwise controlling dust.

S.H. Bell submitted a revised plan and cover letter on April 3, 2017. Below, we detail concerns about the April 2017 Draft Fugitive Dust Plan (2017 Draft FDP).

IV. S.H. Bell's April 2017 Plan does not cure the defects of its 2015 Plan.

CDPH cannot approve S.H. Bell's 2017 Draft FDP as written.

A. *Reportable Action Levels and the Contingency Plan*

CDPH must disapprove the 2017 FDP because the proposed contingency plan will not protect the community, as it relies on a reportable action level (RAL) that is set too high, while focusing too heavily on subjective evaluation of the problem.

The Bulk Material Rules require the development of a "contingency plan" for

[8] CDPH March 3 Letter.

when PM10 monitors detect PM10 above the "reportable action level."[9] The contingency plan should include response activities that should include "increasingly aggressive measures appropriate to different levels of exceedance."[10] Reportable action levels (RAL) means,

> [t]he positive difference between the level of PM10 measured at the upwind monitor(s) at a Facility and the level of PM10 measured at the downwind monitor(s) at a Facility that will trigger response activities under a contingency plan pursuant to Section 3.0(3)(f) . . . The Reportable Action Level may vary based on the value of the difference, and based on the concentration of PM10 detected at the downwind monitor(s) at a Facility.[11]

The Bulk Materials Rules indicate that the RAL "may vary" and do not set a global RAL for all bulk materials facilities. In the absence of a proscribed RAL, CDPH has allowed the facility owners/operators to propose an RAL.

As designed, the RAL provision operates as a proactive, preventive requirement to avoid harmful air quality episodes in the first instance. Nothing in the RAL's design requires it to be tied to exceeding federal ambient air quality standards, at which point harm has already occurred. This is especially true with respect to pollutants like PM, for which the scientific literature to date has identified no threshold for health impacts, and toxic metals like manganese that can negatively impact the cognitive development of children. Indeed, the fact that the City's dust regulations require the RAL scheme *in addition* to the already-existent state and federal requirements for opacity/visible emissions/PM demonstrates that the RAL should not merely duplicate or enforce such requirements.

CDPH thus should reject S.H. Bell's proposed RAL because it is not sufficiently protective, in that it will not result in avoidance of harmful hourly and daily spikes in local air pollution associated with S.H. Bell's operations. S.H. Bell's 2017 FDP proposes a RAL of 150 micrograms per cubic meter (ug/m3), using a 24-hour

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[9] Bulk Material Regulations B.3.0(3)(g) (cross-referencing B.2.0(20)).
[10] Id.
[11] Bulk Materials Regulations B.2.0(20).

average, on the grounds that "it is most justifiable to set the RAL" at the 24-hour National Ambient Air Quality Standard (NAAQS) for PM10. As it is set at the full amount of the NAAQS itself, the proposed RAL of 150 ug/m3 on a 24-hour average does not provide the opportunity for S.H. Bell to take corrective action to avoid a NAAQS violation in the first instance. Indeed, the nature of the particulate matter involved poses unique health concerns. EPA Region V has required lower action levels in situations when monitors are evaluating the level of airborne lead and arsenic;[12] rather than relying on the 150 ug/m3, EPA set the level at 68 ug/m3. In light of the fact that the particulate matter here includes a known neurotoxin, manganese, it also makes sense for CDPH to require a substantially lower RAL.

It also ignores that the S.H. Bell facility does not operate in a vacuum, but contributes to a background level of PM10.[13] S.H. Bell cannot ignore its industrial and residential setting and act as if the background PM10 concentration has no bearing on its own operations and obligations with respect to air quality. Finally, as a daily average, it fails entirely to help the facility and community avoid the peaks of emissions spikes that we are already seeing in the hourly PM10 data from S.H. Bell. The 2016 ATSDR report on the KCBX sites notes that one study on "hourly PM10 and health outcome data… reported that a change in hourly and daily PM10 concentrations of 10 μg/m3 was significantly associated with total mortality, and sub-daily (12 hour) exposures were also associated with cardiovascular mortality."[14] The RAL is the mechanism by which facilities in Chicago can and should avoid such harmful hourly increases due to dust from their operations. Thus the Reportable Action Level should be set at some point well below the PM10 NAAQS and on an hourly, not daily, basis.

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[12] Memorandum from Keith Fusinski, Toxicologist, EPA Region V, to Tom Alcamo, Remedial Project Manager, Recommended Screening Levels for Airborne Arsenic and Lead during Demolition Activities in Zone 1 of the USS Lead Site (April 6, 2017) (attached).

[13] Note that we raised the same argument in the context of KCBX's draft fugitive dust plan's inadequacies. NRDC, SETF, SSCBP et al Comments re KCBX Variance Request, 11 (September 2, 2014).

[14] ATSDR, Health Consultation: Review of Analysis of Particulate Matter and Metal Exposures in Air, KCBX, August 2016, at 15 (citing Son and Bell (2013)), available at https://www.atsdr.cdc.gov/hac/pha/KCBXPetroleumCoke/KCBX_Petroleum%20Coke_HC_508.pdf.

S.H. Bell's plan for responding to "hourly events" is also inadequate to protect public health because it sets the facility response level too high. S.H. Bell indicates that it will,

> [e]valuate hourly PM10 and wind data from the monitors while the facility is operating to determine if there are potentially elevated levels of PM10 at the facility where prudence would dictate implementing the Response Activities below even though it would not be a reportable RAL Event (the "Hourly Contingency Procedure").[15]

S.H. Bell proposes an hourly response level at 500 ug/m3, basing this number on OSHA permissible exposure limit (PEL) standards and an Ohio EPA policy for controlling toxic air emissions.[16] It seems to rely heavily on the Ohio Air Dispersion Modeling Guidance for developing a Maximum Acceptable Ground Level Concentration because it states that under the MAGLC Option A modeling methods, it calculated the respirable dust at the site to be 500 ug/m3. However, the 500 ug/m3 standard is also deceiving because the referenced OSHA PEL standard is not based on a differential, as is the response level here. In addition, to the extent S.H. Bell is relying on the OSHA PEL, the OSHA numbers are questionably relevant here because the exposure hours (8-hour days) and conditions vary dramatically between workers and neighboring residents. The OSHA standard also is based on healthy male adult workers and does not account for the heightened health risks faced by the many children, seniors, and other vulnerable populations living in the community. S.H. Bell provides no analysis supporting that its arbitrary selection of a factor of 10 is sufficiently protective in light of these differences.

Notably, despite our arguments to the contrary, CDPH approved KCBX's use of an hourly RAL of 300 ug/m3. We considered KCBX's RAL too high based on the lack of express support for the selected RAL and the problematic air modeling upon which it seemed to be based.[17] Moreover, CDPH approved KCBX's proposed RAL prior to release of ATSDR's report, which as noted above highlights the harms from

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[15] 2017 Draft FDP, 19.
[16] Id.
[17] NRDC, SETF, SSCBP et al Comments re KCBX Variance Request, 11 (September 2, 2014).

PM at levels well below the NAAQS and PM hourly increases. Yet, S.H. Bell's proposed RAL is even higher, ensuring that it will not provide protection to the community. At minimum, CDPH should consider KCBX's approved RAL as a floor for acceptable general PM10 RALs. And S.H. Bell's RAL should be lower than an appropriate PM10 RAL—to reflect that the particulate matter in question includes manganese dust. As discussed above, EPA has required lowered action levels when lead and arsenic have been involved, and CDPH should do so here because manganese is involved.

Even if the RAL were appropriate, which it is not, the response activities that the RAL triggers are not stringent enough. First, the plan gives S.H. Bell significant deference to determine whether the problem is on- or off-site, because it merely indicates that it should investigate potential on-site sources and does not provide a thorough procedure.[18] If the RAL is triggered, S.H. Bell will not suspend dust-generating activities until it determines the cause; instead, it will conduct mitigation measures that will be stopped after one hour. Then, S.H. Bell will continue business as usual. Considering the potential harm to the community, S.H. Bell should act out of precaution and stop dust-generating activities until it can be certain that it has eliminated the problem.

B. *S.H. Bell Should Suspend Dust-Generating Activities During High Wind Events*

When a high wind event occurs, the Bulk Material Regulations require the facility to suspend "disturbance of outdoor Bulk Solid Material piles, including but not limited to outdoor loading, unloading, and any other Processing" unless it can implement alternative measures to "effectively control dust in accordance with the approved Fugitive Dust Control Plan."[19]

S.H. Bell's 2017 Draft FDP explains that if winds exceed 15 mph over two consecutive five-minute periods, an alert system will be activated and required

[18] 2017 Draft FDP, 19-20.
[19] Bulk Material Regulations, Part D, 5.0(5).

response steps will be performed as laid out in Section IV and Appendix A.[20] Section IV sets forth the control measures generally, but does not specifically address actions during high wind events. Appendix A provides flow charts for normal operating procedures for the different site activities. The flow charts typically account for wind issues in the pre-planning and suggest that increased wind or dust observation *would trigger observation of visible emissions and opacity;*[21] only a few of the flow charts call for the suspension of activities and do so only when there are visible emissions at the property line.[22] The flow charts also indicate that the first step is try to dampen the material, but S.H. Bell has stated that it is not workable to wet manganese products which may prevent this approach.

Considering that the ultimate goal of the fugitive dust emissions rules is to prevent harm to the community, when wind speeds exceed 15 mph, S.H. Bell should suspend outdoor dust-generating activities including the disturbance of outdoor Bulk Solid Material piles, outdoor loading, unloading, and any other Processing, and not wait until it sees visible emissions. This is the baseline requirement mandated by the Rules at Section 5.0(4), which prohibits the disturbance of piles, including during loading and unloading, when winds exceed 15 mph. The Rules make an exception to this requirement only where alternate measures are implemented to effectively control dust in accordance with an approved fugitive dust plan. S.H. Bell has not met this standard: Despite the significant risk of manganese dust creation during loading and unloading events, S.H. Bell only uses reduced drop heights and a mobile spray truck to control dust (the latter after dust is created) and not more robust structural, preventive and self-implementing controls. Other deficiencies in the contingency response—opacity monitoring proposal and other plan components that are detailed in these comments—render S.H. Bell's proposal inadequate for meeting the requirements of Section 5.0(4). The baseline objective standard of halting dust-generating activities when winds exceed 15 mph instead is necessary to protect the surrounding community's health from this facility.

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[20] 2017 Draft FDP, 22.
[21] 2017 Draft FDP, Appendix A.
[22] Id.

C. *The Opacity and Visible Emissions Provisions of the 2017 Draft FDP Must Be Strengthened*

S.H. Bell's 2017 Draft FDP's opacity testing does not provide the essential detail or stringency required by the Bulk Material Rules. Under the Bulk Material Rules, a fugitive dust plan must describe the schedule and plan for opacity testing. The testing must be conducted by a trained and certified professional, and occur under a range of weather conditions to ensure coverage of representative conditions.[23] Most importantly, the plan must "ensure compliance with the prohibition on Fugitive Dust" in Section 3.0(2) of the Rules, which prohibits visible emissions beyond the fenceline and requires *storage piles, transfer points, roadways, and parking areas* to comply with an opacity limit of ten percent.[24]

As we previously discussed in the context of KCBX's fugitive dust plan, an opacity plan will only be effective in ensuring compliance with the narrative and numeric limits contained in the Rules if it is detailed.[25] S.H. Bell's vague opacity plan, which leaves all the discretion to the Opacity Reader, does not sufficiently ensure compliance with Section 3.0(2) of the Bulk Material Rules. Vague descriptions of work practices do not provide a sufficient degree of control to meet standards.[26] For these reasons, a robust testing and monitoring plan is needed here. S.H. Bell's proposed plan fails in several ways.

Visible emissions observation is left up to facility personnel's observations and experience with what is "normal" or "abnormal." There is no baseline

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[23] Bulk Materials Rules at Section 3.0(3)(f)(ii).

[24] Id. at Sections 3.0(3)(f)(ii), 3.0(2).

[25] NRDC, SETF, SSCBP September 2, 2014 Comments on KCBX Variance (September 2, 2014) 7-9 ("As U.S. EPA has explained, in order to ensure compliance with all applicable limits on air emissions, monitoring and reporting requirements 'must be written in sufficient detail to allow no room for interpretation or ambiguity in meaning.'" (quoting Letter from Bharat Mathur, Dir., Air and Radiation Div., U.S. EPA Region 5, to Robert F. Hodanbosi, Chief, Div. of Air Pollution Control, Ohio EPA at 5 (Nov. 21, 2001)), available at http://yosemite.epa.gov/r5/r5ard.nsf/2134f82000aa062c8625 7577004df4d7/e41cff2e2776db13862574c8006eb64c/$FILE/signedOHTV.pdf)

[26] Id. (citing In re Cash Creek Generation, LLC, Petition No. IV-2010-4, Order Granting in Part and Denying in Part Petition for Objection to Permit (U.S. EPA June 22, 2012), at 29,available at http://www.epa.gov/Region7/air/title5/petitiondb/petitions/cashcreek_response2010.pdf)

description of what is normal, or what will be considered "abnormal."[27] Similarly, there is no objective description of how personnel will determine if there is "the *potential* for visible emissions… at the property line" (emphasis added).

S.H. Bell's proposal for conducting observations to ensure compliance with the visible emissions limit is inadequate, as the company only commits to conducting such observations "a minimum once per working shift basis." Given that activities at the site may be underway for several hours during a shift, with PM monitoring showing significant increases in PM levels at certain times during active operations (primarily towards the end of what appear to be shifts in the midday/early afternoon), this description of frequency is inadequate. The plan should instead required ongoing visible emissions observations at least hourly during active operations. In addition, an observation point "at the property line closest to each active operation" may not be the point at which visible emissions are most likely to cross the property line, as factors such as wind direction may make another point at the property line more appropriate. Video cameras are one available means for ongoing monitoring of visible emissions at the fenceline that may obviate the need for significant personnel time to conduct such monitoring. Cameras could be installed at fenceline positions near working areas that see relatively higher levels of activity than other parts of the facility, e.g., vehicle loading and unloading areas and more active piles. The company thus should propose a plan for visible emissions fenceline monitoring that (a) includes video monitoring, (b) identifies the optimum locations from which, and times at which, to observe fenceline emissions, relative to weather conditions, activity levels, and material handled, and (c) covers worst-case emission scenarios such as vehicle loading and unloading and other similar outdoor or relatively uncontrolled activity.

The opacity testing plan does not indicate whether the Opacity Reader will be an S.H. Bell employee or an independent Opacity Reader. We request that S.H. Bell works with an independent Opacity Reader to increase objectivity (it is our

[27] S.H. Bell 2017 Draft FDP, 17.

understanding that KCBX hired a third-party reader).

The opacity testing lacks objectivity regarding the proper day and time for testing because it relies on the judgment of the Opacity Reader to select the day and time. The plan merely says that "[q]uarterly opacity reads will be completed during the last month of each quarter."[28] The plan contradicts itself by saying that generally the opacity readings will be performed on "clear days or partly cloudy days" but then later states "opacity readings will be conducted during a range of weather conditions."[29] S.H. Bell should propose and justify objective conditions and weather thresholds for testing that ensure testing occurs during periods that represent worst-case emissions, such as wind conditions just below 15 mph (assuming, per the above comment, that the plan requires cessation of dust-generating operations once winds hit 15 mph) when activities like vehicle loading and unloading are underway. The onsite weather monitoring data that S.H. Bell collects should be used to track and verify the determinations.

S.H. Bell provides some descriptions of the points that will be tested during the quarterly opacity testing—storage pile with largest quantity of material, transfer point in operation, and roadway in use—but these designated sources may not reflect the biggest risk of significant emissions generally or Affected Material emissions in particular. For instance, a large storage pile that remains inactive during testing is likely to produce lower emissions than a smaller pile experiencing significant disturbance activity. Piles containing materials that cannot be wetted are generally more likely to create dust than those that are directly wetted; the same can be said for piles that are tarped versus untarped (the latter including periods before/after tarping when activity takes place at piles otherwise covered with tarps). A roadway that is adjacent to active outdoor operations and/or traversed by trucks that remain uncovered will likely have greater dust emissions than another roadway without these characteristics. The opacity testing protocol should include objective requirements that the company test a range of such sources, not solely the

[28] Id. at 18.
[29] Id.

pile with the largest quantity of material or roadway with vehicle traffic on it on the day of the read, over time. We also note that the language describing how the reader will select the day for reading only mentions factors going to weather conditions, and not other factors going to emissions levels such as type and amount of material onsite and level of expected activity moving said materials on a given day. Thus, a reader could select a day on which relatively little dust-generating material will be handled. The plan should instead include an explicit list of factors that will be taken into account in selecting opacity testing days, along with recordkeeping requirements by which consideration/fulfillment of such factors can be readily gauged.

S.H. Bell omits from its opacity testing plan a contingency plan for opacity testing if the conditions necessary for valid Method 9 testing are not in place at a time when testing would otherwise be indicated due to weather and/or activity level. Method 9 is a relatively complicated test that requires certain geometric relationships to be present among the reader, the sun, and the point of observation. Without a contingency plan, critical testing times may pass without any valid testing occurring.

Based on these inadequacies, S.H. Bell's 2017 Draft FDP does not ensure compliance with the Bulk Materials Rules prohibitions on visible emissions and opacity greater than 10%.

D. *S.H. Bell Should Move Its PS2 Monitor In Accordance With USEPA's Request*

CDPH should not approve the fugitive dust plan until S.H. Bell complies with EPA's regulations and requirements for the placement of monitors at S.H. Bell's O Street facility. CDPH has made clear that it is coordinating with , and deferring to , EPA when it comes to the placement of the monitors.[30] S.H. Bell should move the

[30] See email,
tello, USEPA Region 5 to Scott Dismukes, Eckert Seamans (counsel for S.H. Bell) (June 5, 2017) (noting that City agrees and that the monitor is also incorporated into the City's fugitive dustplan) (attached).

monitor in question—PS2—as soon as possible.

EPA has required that S.H. Bell locate a monitor 40' from the High Bay Building because it considers 40' the appropriate distance for measuring S.H. Bell's PM10 contributions. S.H. Bell has argued repeatedly that EPA had approved the placement of the monitor at 32' based on the submission of latitudes and longitudes and a Google earth map.[31] EPA has stated that the approval was always conditioned on complying with the 40' requirement and that when inspection revealed that S.H. Bell had not complied, EPA ordered it to comply. Regardless of the justification for the misplacement of the PS2 monitor, S.H. Bell should not be permitted to delay compliance with the monito r placement requirements; indeed, S.H. Bell has already delayed the installation of the monitors altogether for more than two years. The health of the community depends on gathering accurate information from these monitors. In sum, we fully support EPA's required placement of PS2 at 40'.

IV. Dust Controls Still Lack Specificity In the 2017 Draft FDP

Many more questions about dust control must be answered before CDPH should approve S.H. Bell's fugitive dust plan.

A. *Bag House Equipment*

The management practices for the bag house equipment are not discussed in this plan, despite its obvious need to maintain the equipment and properly dispose of captured dust to avoid unintended fugitive dust emissions.[32] In fact, the mobile bag house equipment may require special attention and management to prevent the release of dangerous manganese dust.

B. *Affected Matter*

The cover letter for the 2017 Draft FDP indicates that while S.H. Bell has committed to storing all affected materials (AM) inside, severe shortage of indoor

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[31] See Scott Dismukes, Letter to Nicole Cantello, USEPA (May 25, 2017) (attached).
[32] See, e.g., Michigan Department of Environmental Quality, MANAGING FUGITIVE DUST GUIDE (attached), available at https://www.michigan.gov/documents/deq/deq-ead-caap-genpub-FugDustMan_313656_7.pdf

storage—capable of accommodating on average 70% of inventory—necessitates that it, as needed, will temporarily store large particle size (greater than ½ inch diameter) AM outside. This raises some important questions that require clarification due to inconsistent statements within the plan:

- Does all AM arrive at the facility in both small and large particle size?
- How much AM is small particle size (smaller than ½ inch diameter) and how much is big particle size?
- How frequently and for what duration will large particle size AM be stored outside?
- Will small-particle size AM always be stored inside?
- What if indoor storage is at capacity and small particle size AM is expected to arrive at the facility?
- Will large particle AM stored outside always be tarped?

C. *Indoor/Outdoor Storage*

In response to CDPH's March 3 letter, S.H. Bell added information regarding the materials it handles and the storage of those materials. Yet, the 2017 Draft FDP is still very confusing and leaves room for multiple interpretations, rendering portions unreasonably and unenforceably vague. Several questions remain with regard to the indoor/outdoor information included in the 2017 Draft FDP:

- How much of the affected material is stored in the three-sided structures versus four-sided structures? (We recommend that the company include photographs of the various storage structures and descriptions of how they operate and are used in the dust plan.)
- What is the explanation for why S.H. Bell cannot convert the three-sided structures into a four-sided structure or structures?
- Will all the materials stored in the three-sided structures be tarped? Will all or part of such tarps be removed during specific times, such as working of the piles, and is there an increased likelihood of fugitive dust emissions at these times?

D. *Unloading/Loading Trucks, Barges, and Railcars*

More detail is needed regarding the management of loading and unloading activities to ensure that they occur in a way that prevents fugitive dust emissions.

1. Trucks

The 2017 Draft FDP states that dry materials will be loaded into trucks inside a loadout shed or storage building, while materials that are stored outside and are damp are loaded outside. It also states that trucks will not be tarped inside the building. Again, more details are needed to ensure that fugitive dust emissions are prevented.

First, the proposed plan is not in compliance with Bulk Material Rule 3.0(8)(d), as it fails to include a wheel wash station for trucks. S.H. Bell's position appears to be that the company qualifies for the exemption from a wheel wash due to measures that ensure trucks will not cause track out onto public ways.[33] However, the measures that the company describes for trucks consist of road sweeping and watering, along with rumble strips. These measures are already required by the Rules, *in addition* to a wheel wash. Thus they cannot be viewed as achieving an equivalent level of track-out protection to that envisioned by the Rules' layered requirements, and so fail to qualify for the wheel wash exemption. Stringently cleaning trucks to prevent track out is especially important given the poor track record on this issue at other facilities in the area, such as the Ozinga facility on 103rd Street.[34]

Second, considering that material is being transported around the facility, either upon arrival or in preparation for departure, it is critical that the drayage trucks, used for this on-site transport, be covered. It is our understanding that S.H. Bell has committed to finding drayage trucks that can be covered. The fugitive dust plan should require such coverage by a date certain.

Other questions must be answered:

- What systems are in place to prevent fugitive dust emissions from the three-sided steel receiving pans[35] used for unloading full-size trucks?
- Why don't inbound trucks require watering unless fugitives are

[33] S.H. Bell 2017 Draft FDP, 11.
[34] See https://www.epa.gov/il/ozinga-ready-mix-inc
[35] S.H. Bell 2017 Draft FDP, 7.

observed? Watering should be required as a preventive measure.
- What is the process by which the soon-to-be installed stationary dust collectors work?

2. Barges

S.H. Bell indicates that barge loading occurs infrequently, but it does not provide sufficient detail as to what "infrequently" means. It also does not indicate how often barge unloading happens. Moreover, it does not provide sufficient detail as to protections at the barge area that will prevent fugitive dust emissions.

The plan is unclear about the way barge loading will be handled vis-à-vis wind speeds. In the description of barge loading, S.H. Bell's 2017 Draft FDP states that "Barge unloading operations of bulk materials that cannot be directly sprayed with water are completed when the wind is 15 miles per hour or less…". In the same paragraph, the Draft FDP goes on to say that "[i]f excess wind speed is observed, the facility manager will consult with the on-site met station to determine wind speeds at the facility and determine if loading/unloading operations should be temporarily suspended" (the passage does not define excess wind speed). This vague and potentially contradictory language leaves unclear whether or not all loading and unloading of bulk materials that cannot be directly sprayed with water will in fact be halted when wind speeds exceed 15 mph. As set forth above, the plan should require that all such loading activities halt once wind speeds reach 15 mph. (It is unclear how this language aligns with other references to 15 mph in the dust plan, acting only as a trigger for additional action if visible dust is observed. Such conflicts can be eliminated throughout by treating 15 mph as a bright-line cut-off for dust-generating activities.)

The lack of detail raises other questions:

- What percentage of barge unloading/loading involves AM?
- What measures are taken to control dust from the temporary piles that cannot be wetted (which likely includes most of the AM)?

3. Railcars

With regard to railcar unloading and loading, the S.H. Bell's 2017 Draft FDP essentially relies on an "as needed" approach, without explaining what objective factors will be used to determine when measures are "needed." It also indicates that it will use mobile misters and dry fogging systems to control fugitive dust emissions.[36] Again, the plan is too vague:

- What are all the different ways in which railcars are unloaded?
- Why isn't wetting appropriate in rail car loading and unloading?
- How will S.H. Bell determine if it has controlled fugitive dust to below 10% opacity at the operation and no visible emissions crossing the property line? How often will it be making the opacity and visible emissions evaluation for the railcar areas?
- Explain the differences between loading methods—telescoping chute versus loading spout?
- Why are top open rail cars loaded with a front-end loader? What material is loaded into the rail cars?

E. *Roadways*

S.H. Bell's 2017 Draft FDP's language related to roadways creates confusion in other sections. For instance, the roadway language seems to imply that road wetting will take the place of wheel washing. It states that it "frequently waters and/or applies dust suppressant to roads."[37] The 2017 Draft FDP relies on the road sweeping/water schedule and monitoring to serve as the equivalent as wheel washing. It provides no support for this approach, which directly contravenes the Bulk Materials Rules.[38]

Much needs to be done to protect the surrounding community from harmful exposure to manganese and particulate matter. While the City of Chicago considers its long-term options, it should ensure that every step possible is taken to eliminate fugitive dust emissions at the S.H. Bell O Street Facility. Accordingly, S.H. Bell's 2017

[36] S.H. Bell 2017 Draft FDP, at 9.
[37] Id. at 11.
[38] Id.

Draft FDP should not be approved in its current form.

Thank you for your consideration.

Sincerely,

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